



Pediatric Clinic  
ASTHMA EDUCATION HANDOUTS

## Asthma Medication Review

### Beta<sub>2</sub>-agonists

#### Action

Beta<sub>2</sub>-agonists are bronchodilator medications that open airways by relaxing the muscles in and around the airways that tighten during an asthma episode.

#### Medications

- ☐ Albuterol
- ☐ Proventil
- ☐ Ventolin
- ☐ Terbutaline
- ☐ Brethaire

#### How They Are Prescribed:

Beta<sub>2</sub>-agonists come in inhaled and oral forms. Inhaled preparations are the preferred way of taking these medications.

Inhaled beta<sub>2</sub>-agonist preparations are available as:

- Metered-dose inhaler
- Solution for nebulization
- A powder-filled capsule that is inhaled by using a device called a dry-powder inhaler

Inhaled short-acting beta<sub>2</sub>-agonists quickly stop symptoms of asthma episodes and prevent symptoms that are started by exercise. They are sometimes used in small doses (no more than three or four times a day) to treat daily asthma symptoms. Long-acting inhaled salmeterol is used as a controller medication in conjunction with inhaled corticosteroids to prevent symptoms. It cannot be used to relieve an acute asthma episode.

Oral preparations are available as:

- Liquid or tablet

#### Side Effects:

Side effects include rapid heart beat, tremors, feeling anxious, and nausea. These side effects tend to leave as the body adjusts to the medication. Serious side effects are rare, but may include chest pain, fast or irregular heartbeat, severe headache or feeling dizzy, very bad nausea, or vomiting. Call your physician right away if you have any of these symptoms.

#### Notes:

Inhaled medicines are the first choice. They begin to work within 5 minutes and have fewer side effects than the oral preparation. The medication goes right to the lungs and does not easily go to the rest of the body.

Liquids or tablets begin to work within 30 minutes and last as long as 4 to 6 hours.

A child as young as 5 years of age can use the metered-dose inhaler. A holding chamber (or spacer device [a tube attached to the inhaler]) can be attached to the inhaler to make it easier to use and can help even younger children use a metered-dose inhaler.

Using a nebulizer to take the medicine works the same way as using an inhaler. A nebulizer is easier to use than an inhaler. It is good for a child under the age of 5, for any patient who has trouble using an inhaler, or for a patient with severe asthma episodes.

**REMEMBER: Beta<sub>2</sub>-agonists relieve symptoms, but they cannot reduce or prevent the swelling that causes the symptoms.** When you have to use a beta<sub>2</sub>-agonist frequently, it may be a sign that the swelling in your airways is getting worse. If you use a beta<sub>2</sub>-agonist to relieve symptoms every day or if you use it more than three or four times in a single day, your asthma may be getting much worse. You may need a controller medicine, and you need to discuss this with your physician right away.